Working to support cultures of safety in maternity and neonatal services: a qualitative interview study with service leaders and unit/safety leads

ABSTRACT

Background

Recent inquiries have demonstrated the significance of safety cultures within maternity and neonatal services. Research has highlighted the benefits of shifting attention away from safety incidents and towards learning about how the mundane, 'normal' accomplishments of safety are shaped by local cultures. However, we still have much to learn about the role of different staff groups in creating conditions that nurture and sustain local safety cultures.

Aims

To explore how staff in middle-management positions worked to influence safety cultures at local maternity and neonatal unit and service level.

Methods

We used a qualitative design, starting with scores obtained from a safety culture survey to identify high-performing organisations in England, in line with a positive deviance approach. Thirteen service leads and 23 unit/safety leads participated in interviews. Analysis used the constant comparative approach, combined with a theoretically-focused coding framework.

Findings

Our research revealed how service and unit/safety leads influenced their local cultures of safety: through working across boundaries between the executive board and frontline practice on maternity and neonatal safety priorities; engaging with the service user voice, bringing this into the boardroom and the ward; and using horizon-scanning and political connections to manage the interface between policy initiatives and local practice.

Conclusions and implications

Staff in middle-management roles play an important role in nurturing and sustaining local cultures of safety, through boundary working within and outside the organisation and with different stakeholders. This demonstrates the importance of supporting staff in such roles, in efforts to develop local safety cultures.

STATEMENT OF SIGNIFICANCE

Problem: problematic cultures/sub-cultures are acknowledged as a contributing factor to failures within healthcare services

What is already known: research has highlighted the benefits of shifting attention away from safety incidents and 'extraordinary events', and towards learning how the mundane, 'normal' accomplishments of safety are shaped by local cultures

What this paper adds: this paper highlights the important boundary work that staff in middle-management positions undertake to create the conditions that nurture and sustain local safety cultures

KEYWORDS

Maternity; neonatology; safety culture; middle managers; boundary work; interviews

INTRODUCTION

Recent confidential enquiries and reports within the UK have indicated a need for improved safety within maternity and neonatal services (Kirkup, 2015; Knight et al., 2021; Draper et al., 2021; Ockendon, 2022). Problems identified have included: poor working relationships between staff groups; difficulties raising concerns and being heard (both for staff and women/families); and failure to learn from mistakes (Kirkup, 2015; Ockendon, 2022). Safety culture - the shared values, beliefs, assumptions, and norms that shape safety-related organisational decision-making and provider behaviours (Davies et al., 2000; Guldenmund, 2000) – is strongly implicated within these reports.

Operationalising safety culture is difficult, however, as it can be seen as slippery, abstract and ambiguous, with broad definitions acting as a 'catch-all' for any safety-related phenomena (Bisbey et al., 2021). There is still much ongoing debate around the utility of using 'safety culture' as a construct. Some advocate that every organisation has some form of safety culture, and this can be described, whilst others argue that only an organisation with a strong commitment to safety can be said to have a safety culture (Hopkins, 2006). It is arguably more useful, therefore to focus on how organisational culture (or sub-cultures) influence safety as this lens can provide insights into the ways organisational cultures need to be adapted to give a higher priority to safety (Hopkins, 2006). In this paper, we take our lead from Antonsen (2009), and use safety culture as a 'label' to signify the consequences that culture can have for safety, rather than conceptualising it as a particular entity.

While evidence is emerging about how best to strengthen safety cultures from large-scale programmes (Caldas et al., 2022; Curry et al., 2015; Haugen et al., 2020), to date, little attention has focused on the interplay between national, organizational and local-level influences on the practices that produce and sustain safety cultures (Caldas et al., 2022). This encompasses historically-contingent local practices that interact with external bodies and discourses *outside* the workplace (e.g., policy contexts; standards, norms and values of professional bodies) (Goodwin, 2018).

In addition, a focus on systems approaches to safety arguably leads to a loss of focus on the significance of interactional, collaborative practices for safe care (Pedersen & Mesman, 2021). Mannion notes that healthcare cultures are co-produced by interactions with diverse actors including patients, carers, relatives, and other stakeholders (e.g., social care workers, service commissioners, and regulators) (Mannion, 2022). This perspective points to the need for research into cultures within healthcare organisations, that incorporates the views of diverse stakeholders. Research could usefully explicate the relations between different actors, and across boundaries,

acknowledging that local cultures evolve and are co-produced through these relations (Goodwin, 2018).

Middle-managers - those in managerial roles, positioned between front-line workers and senior leadership - are increasingly seen as key actors in the production and sustaining of local safety cultures, given the importance of team- and clinical microsystem-level functioning for patient safety (Gutberg & Berta, 2017). They fulfil important knowledge broker hybrid roles, acquiring and communicating knowledge across the organization, influencing others and impacting both strategic and operational outcomes (Gutberg & Berta 2017; Boutcher et al., 2022). However, there is still much we have to learn about middle-managers' interactional and collaborative practices (Hedskold et al., 2021) in relation to different stakeholders, and across boundaries, and how these practices can shape local safety cultures, in particular within the context of maternity and neonatal care.

In this paper, we address current evidence gaps regarding the role of middle-managers in supporting safety cultures within maternity and neonatal care. For the purposes of our research, middle-managers are operationalised as service and unit/safety leads. We draw on findings from a wider study, commissioned by NHS England (NHSE), that aimed to describe meso and micro level factors that create the conditions for nurturing and sustaining local safety cultures, in a sample of maternity and neonatal services in England.

METHODS

Study design and sampling

We used a qualitative study design involving interviews and focus groups, conducted in 2021. All maternity and neonatal services in England had participated in a safety culture assessment in 2018/9 (NHSI, 2019), using the Safety, Communication, Operational Reliability, and Engagement (SCORE) tool (Sexton et al., 2019), which demonstrates strong psychometric properties in relation to psychological safety (Adair et al., 2022). This assessment tool continues to be used widely as a method of enabling improvement within the NHS (e.g., Health Innovation Oxford and Thames Valley, 2024). We selected the top 14 organisations based on highest aggregate maternity and neonatal service scores from the SCORE tool, in line with a positive deviance approach (Baxter & Lawson, 2022). Rather than focusing on the score as an objective measure of performance and outcomes, we used it as a *starting point* to prompt reflection and qualitatively explore local cultural dynamics. We envisaged this would help staff anchor discussions around cultural practices (and changes in these) in relation to particular timepoints rather than focus on more abstract, grand notions of culture.

Multistage purposive and snowball sampling was used. Service leads, selected on the basis of their involvement with use of the SCORE survey and service level safety culture developments, were invited to participate in scoping interviews. We then purposively selected four services for in-depth follow-up, informed by geography, demographics and diversity in the data from the scoping interviews. We selected two units per service, including labour wards (4), neonatal units (3), and an antenatal clinic (1) and invited staff in unit/safety leadership roles to participate in interviews, and unit/ward staff to join in local focus groups.

Data collection

Approvals were granted by the University of Leicester Medicine and Biological Sciences Research Ethics Committee. NHSE made initial contact with Heads of Midwifery, Board level safety champions, Regional Chief Midwives and Clinical Directors, to invite them to participate in the project. Potential participants were sent copies of the participant information leaflet and contact details of the study team. The study team followed up with those willing to participate. Scoping interviews focused on service leads' experiences of local safety cultures, use of the SCORE survey, interventions and improvements that were perceived to have enabled safety cultures to develop, and distinctive features of their organisations.

Service leads from the four selected organisations invited their unit/safety leads to contact us if interested in participating in an interview. These interviews focused on participants' perceptions of their role in relation to safety, and processes and practices that promote and reinforce positive safety cultures. We also invited maternity and neonatal team members to participate in focus groups, via email from the local unit/safety lead, or through engaging with site-specific meetings. Focus groups aimed to elicit staff experience of day-to-day safety culture and how strategies/interventions had impacted on them.

All participants received an information sheet and gave written consent. The interviews and focus groups were semi-structured, held online and conducted by x (an experienced qualitative researcher). The scoping interview schedule was piloted with a service lead from a non-participating site and refined. The unit/safety lead interview and focus group schedules were iteratively amended based on early findings from the scoping interviews.

Thirteen service leads from ten organisations participated in scoping interviews. Three scoping interviews involved two participants (see Table 1). Twenty-two staff in unit/safety leadership roles across the selected departments/units participated in interviews and/or focus groups (see Tables 2 and 3). Due to service pressures during the second Covid wave, we were only able to conduct focus

groups in two sites. Despite this, our use of different clinical contexts provided us with richly textured insights into how middle-management shaped local safety cultures within and across organisations, maternity and neonatal care.

Interviews and focus groups were audio-recorded and transcribed verbatim anonymously.

Data analysis

Analysis drew on a blend of inductive and deductive approaches informed by the constant comparative approach (Charmaz, 2006) together with a theoretically-focused coding framework (Bisbey, 2021). Data were coded using NVivo. Two members of the team (x and x) discussed and iteratively reviewed the coding framework and themes on a weekly basis and presented these to the wider team for further analytical reflection. Initially, we focused on mapping group and organisational level enablers, and relationships between safety cultures and patient safety actions from the scoping interview data. We then developed narrative case studies for the sites, and further interrogated the data for what constituted supportive contexts for safety culture development, including synergies and disparities between accounts from staff working in different roles and units, and at different hierarchical levels of the organisation. All participants were invited to a webinar in which we presented, and invited feedback on, early findings.

RESULTS

For the purposes of this paper, we present data from an over-arching organising theme on the work performed by service and unit/safety leads that supports safety cultures within maternity and neonatal care, and structure this into the following sub-themes as follows: bridging hierarchical divides between floor and board; fostering inclusion with families and communities; and being attentive to and working with policy makers.

Bridging hierarchical divides between floor and board

This draws on data related to cross-boundary work between units and services with the executive team and non-executive directors, and the Committees that sit under the Board. Having the formal structures in place to foster openness and transparency from floor to board is important to enable cross-boundary interactions, relationships and two-way communication. Culture circulates these formal structures and is shaped by how they work (Mannion et al., 2018). Structures provide the scaffold, with particular configurations either enabling specific ways of working or making other safety practices more problematic, as detailed by a service lead below.

'Before, we had one director of midwifery (DOM) across three sites and two or one heads of midwifery across the three sites, this was unmanageable [..] she said it was impossible to keep an eye safely on the three sites. So we now have a DOM reporting directly to the director of nursing at each site, with myself sitting centrally. Our safe culture and the reporting structure was reported positively in the CQC inspection for the Trust.' (Lime, scoping interview, 8)

Several participants noted the significance of their 'triumvirate' governance models which signalled the importance of multidisciplinary working (nursing/midwifery, medicine and management) at higher levels of the organisation.

'We have a Care Group structure with a triumvirate structure with myself as Associate Director of Nursing, an Associate Director of Operations who has the management function and then the care group director is a paediatrician by background. So there is nursing, medicine and management overseeing the work of the Care Group. And that is replicated in each of the services we run [..]. They have their own agendas but we all meet together as a care group' (Apple, scoping interview, 1)

These models enabled openness and transparency from floor to board, with service leads describing the importance of relationships across hierarchies, that supplemented the formal reporting structures, and enabled service and safety leads to communicate informally and openly with senior teams:

'We have really good relationships and structures in place to take that agenda up to the executive team and subsequently to the Board, so within our governance structures[..] it is really quite visible and very much up and down. [..] there are also touch points... So there are formal governance meetings but actually there are all the informal discussions' (Apple, scoping interview, 1)

Service leads discussed the importance of being held to account, but also described how the nature of the relationship between service leads and the Board meant they felt supported by executive teams in terms of holding risk, and mobilising resources and plans to foster safety improvements. This signalled commitment to safety, and reinforced the priority of safety over other organisational priorities. The setting and defending of safety standards at executive level (e.g., for safe staffing levels) helped to signal a shared commitment to the practicalities of 'safety-in-action'. The term

safety-in-action draws attention to how safety is expressed *through* routine practices and how it intersects with other values such as staff wellbeing, trust and openness.

> *'I'm really proud of what we do in the department, in the division, in the ward areas but actually also I think really strong assurance at Trust level, at board level. We are held to account and we are challenged and have good visibility which I think is important. As an organisation they need to know it's all ok because it's high-risk stuff but it's also good for the teams to know that the Board care about what they're doing' (Cherry, scoping interview, 2)*

The nature of relationships with executive directors not only supported service and safety leads in maintaining safety at unit level, but also meant that service leads felt they could have a strong voice at board meetings so that they could represent the priorities within their division at board level. As another service lead from Elm discussed, for service leads, facilitating two-way meaningful engagement often involved translational work to supplement understandings derived through risk registers and quantitative data.

> *'Our board voice is our chief nurse and our exec. and non-exec. safety champions; they put a lot of emphasis on numbers sometimes, [..] It's really important that you have people that know what they're talking about, and that's probably us, to be able to explain the narrative. Our caesarean section rate is quite high, right? But as long as we can assure ourselves that actually this is about meeting the needs of women, maternal choice, and doing what's right and what is safe. And our injuries to babies is correspondingly low. Then actually that's a really good narrative' (Elm, scoping interview 5)*

When service and safety leads could see organisational commitment to safety this reinforced a sense of cohesion and being in it together. It also enabled a shared sense of responsibility for safety across the hierarchical levels, and facilitated translating safety priorities into action at service and unit level.

> *'We have quite a strong voice on the Board. So that approach whereby we all made that decision [to have birth partners present during the pandemic] was done together [..] we were not just doing it in isolation between me and our clinical director and our clinical lead obstetrician, it was done as a whole Trust Board decision. So as a clinical leader you don't feel quite as isolated really, it is a shared decision' (Beech, scoping interview, 3).*

Fostering inclusion with families and communities

Service leads described how developing and sustaining long-standing connections with local communities helped foster a sense of positive relationships across the lay-professional interface. This included being attentive to power differentials and asymmetries. As noted by a unit/safety lead *'a lot [of the women who access our services] and our staff are from different ethnicities'* (Juniper, unit/safety lead, 14) so practice development events to foster discussion around Black Lives Matter, ethnicity and impact on healthcare offered opportunity to serve as a unifying force for staff and service users. Similarly, a service lead noted how these relationships and networks could foster a community of practice, seeing maternity and neonatal services as a supportive networked resource for the local community.

> *'The other thing that I think that we do well at [our organisation] is that we try and [support] the women who perhaps have a more deprived background. The more health and well-being, and prevention work, we've invested a lot of energy into that and trying to have presence from those women from those groups who wouldn't have a voice; that's a big number of our women, so having somewhere where they can drop in, and make it easy for them to be able to, just be surrounded by [supportive staff] (Maple, scoping interview, 4)*

At service level, while all leads discussed the importance of orienting their '*teams [to] work together for the good of the patient, [which] in maternity is the woman and the baby and the family*' (Apple, unit/safety lead, I2), the majority were also able to identify *how* user voice positively shaped their local safety cultures. Regular check-ins with service users provided a form of sense-checking, which heightened leads' awareness of and insight into everyday safety issues experienced by those using their services. Informal networks and touchpoints supplemented the more formal codified feedback structures (such as Friends and Family Test, an NHS feedback tool).

> *'When we do a safety walk-around we don't just talk to staff we talk to the [(women/users) as well [..], they might just talk to you about when you can pick up a nugget of information that to them are neither a complaint or a concern but are something to learn from and I think that's important' (Maple, scoping interview, 4)*

> *'I also do birth afterthoughts and the labour debriefs and that's very good because you get anecdotal soft intelligence' (Oak, scoping interview, 9)*

Leads at unit level also reflected how important it was to invite feedback from parents, and how meaningful engagement with service users could help staff with self-reflexivity and their ongoing commitment to person-centred care. A number of different online and in-person service user forums provided multiple access points to hear from service users, often via their Maternity and Neonatal Voices Partnerships and other forums such as 'listening clinics' or 'Walk the Patch', (Juniper, unit/safety Lead, 22). By visibly '*leaning into*' (O'Hara et al., 2018) their network of service users, service and unit/safety leads were able to role model the importance of openness to user voice for the development of local safety cultures at different levels of the organisation.

> *'I've always got my ear to the ground. If I hear that a woman may be a little bit upset because she never got an epidural, or a dad's annoyed because there's a delay going to labour ward, I will go in to them and say to them I hear you're a little bit upset, let's talk about it' (Beech, unit/safety Lead, 13)*

Importantly, to have impact on local cultures of safety, a check-in needed to be more than a one-off response to an individual case, ensuring there were effective and systematic mechanisms for wider learning. Demonstrating action-taking, using formal processes to ensure follow-up, communication, feedback and action, was seen as vital.

> *'Every couple of months the team that run the listening clinics send out shared themes to all the staff, so that they know where we can improve' (Juniper, unit/safety lead 22)*

Working to incorporate user voice into forms of technical and non-technical safety training was also seen as an important way of embedding changes based on women and families' experiences. Providing an environment in which service users felt safe enough to share their adverse experiences in order for these to inform training, required both formal (e.g., feedback mechanisms, professional advocacy roles) and informal elements (e.g., social connections). The following excerpt offers an example of efforts to genuinely engage with user voice.

> *'We had a really upsetting complaint a few years ago and clearly the woman's experience had caused her a lot of trauma. And she was very keen to make sure that what she'd experienced didn't happen to someone else. So, instead of us saying, 'Ok, here's some learning from a complaint. This is what we said, this is what she said', with support, because, of course, this woman was quite traumatised and needed support, she came in and shared her patient story at all of our training days (Hawthorne, scoping interview 7)*

A service lead from Maple also described how embedding service user experience into approaches for wider learning involved, at times, acknowledging where additional expertise was needed. Resources were found to bring in an advocacy organisation to help create a facilitative space, which helped provide a sense of safe containment and offered scope for personalisation and conciliation (Iedema, 2022).

Being attentive to and working with policy makers

Outside policy makers at regional and national level set top-down agendas for safety; service and unit leads highlighted the different forms of capital and agency they required to balance the need to respond to external initiatives with the need for managing timelines and expectations locally. Our research was undertaken during covid but also during a time of external scrutiny of the safety of maternity and neonatal services (the Shrewsbury and Telford maternity inquiry was ongoing). A number of policy mandated interventions had been introduced. It is precisely at times of flux and change where the need for improvisation and individualized attention is greatest and where psychological safety may be most valuable (Edmondson, 2012).

Interviewees at unit and service level noted the importance of tailoring their local response to national imperatives. This meant feeling able to resist what they saw as unrealistic timescales set for implementation of policy initiatives such as Continuity of Carer, which had been mandated during the time of the research (NHSE, 2021).

> *'Time was ticking from NHS England's point of view. We weren't at the point that we needed to be in terms of performance but actually, taking the time to put in place those building blocks has now given us a really, really firm foundation and a strategy to actually scale up to 100% Continuity of Carer, over a period of time. So, rather than just rushing out and setting up little pockets across that wide geographical area [..] we needed to be realistic and to support teams, this is a massive transformational change'. (Apple, scoping interview, 1)*

Another service lead described the importance of using local experiences to feedback and influence the policy implementation agenda, as well as networking regionally to tailor their local strategy.

> *'As [Continuity of Carer] is being implemented, it's a bit clunky in terms of the effect on other teams and midwives [who've] been working in the community [..]. And our maternity safety champion is saying, 'ok, how can we feed [these concerns] into the original picture? Let's hear what the other regional voices have to say.' So there's not a 'well you've got to do it, just get on with it' actually we*

need to be sharing that information rather than people having the same problem, and advocating for us at a regional and National level (Cherry, scoping interview, 2)

Other service leads reported utilising different forms of social and cultural capital through their connections and specialist knowledge, which gave them opportunities for voice and political influence within and outside the organisation. A few senior obstetric staff at Lime were well networked with governmental/regulatory bodies (e.g., National Institute for Health Care Excellence); these informal coalitions and networks enabled leverage of their *'intelligence base'* and *operational based knowledge* for safety culture development both locally and nationally (Lime, scoping interview, 8).

'NICE is a very influential body but <organisation 01> healthcare was equally able to push back because of the confidence in the knowledge of the … safety behind fetal monitoring that the organisation is championing. I think that that kind of … the intelligence base, as in data base and also operational based knowledge … influences safety culture for our mothers and babies and our staff. So all these kind of what I call networking, collaborative thinking and going locally first and going nationally kind of underpins our safety culture. (Lime, scoping interview, 8).

Some service leads reported the importance of horizon scanning to ensure they were ready for these shifting policy agendas. As the service lead from Beech reflected '*a lot of us keep ourselves very current, we're very aware of what's coming next, we tend to look very sort of strategically and over the hill rather than look backwards*' (Beech, scoping interview 3). This enabled some proactivity in terms of preparatory work; *'we'd put on a lot of training because we knew what was coming in terms of continuity and Better Births'* (Elm, scoping interview, 5).

DISCUSSION

Attempts to influence culture in large organizations need to involve multiple groups, diverse actors and different activities for effecting change (Antonsen, 2017). Explorations of healthcare culture need to identify which level of culture is under examination, given organisations are internally differentiated and consist of different sub-cultures (Mannion, 2024). Differences in cultures may be linked to staff positions within the organisational structure and their professional roles (Mannion, 2024). This paper provides a novel account of a significant theme that emerged from our findings, how middle-managers from high-performing organisations interacted with hospital boards, service

users, and policy makers, to co-produce and develop local cultures of safety within their maternity and neonatal services. Our findings explicate the processes and practices that these staff were involved in, including the boundary work involved in managing the impact of policy decisions and externally derived priorities imposed on NHS organisations together with 'sharp end' priorities at ward level. Our focus on local cultures of safety focuses attention on the day-to-day accomplishments of practicing safety, enacted through local endeavours, values and materials (Pols, 2015). While structures and interventions were seen as playing a role in supporting safety culture, our findings highlight the importance of the networks, relationships and connections of leaders for facilitating local cultures of safety. Our findings have relevance within the UK and beyond in relation to international efforts to improve safety and quality across all settings (Koblinsky et al., 2016; Nove et al., 2021).

Service and unit/safety leads played a key role in enabling maternity and neonatal safety priorities to feature at board meetings in a meaningful way, and were able to role model and reinforce safety practices at the frontline when well-supported by executive teams. Leads also used their know-how and qualitative sense-making of safety-in-action, informed by user voice, to supplement quantified data presented to the board to influence decision making. Whilst research has highlighted how hospital governance influences safety and quality improvement (Jones et al., 2017; De Regge & Eekloo 2020), relationships between safety cultures and board governance have been understudied (De Regge & Eekloo 2020). Our data provides additional examples of how openness across subcultural boundaries and reciprocal relationships enable safety culture development, supporting previous work on the significance of relationships for effective governance (Nadler et al., 2005). Whilst the value of clinical leaders at board level (including non-executive directors) has been acknowledged (Mannion et al 2015; Jones et al 2017), managers and clinical leaders can also contribute to effective Board decision-making (Brown et al., 2018). Our research extends this to see how unit and service leads can contribute to board level soft intelligence and sense making within the maternity and neonatal context.

Systemic inclusion of service user perspectives also helped leads to engage their staff in focusing on delivery of person-centred care. Routine sense-checking with users and their local community allowed leads to identify, prioritise and address the everyday safety issues and concerns of users. This supports the importance of meaningful engagement and *acting with* service users in local work situations to understand what constitutes cultures of safety and how best to enable safety culture development (Cribb et al., 2021; Lyndon 2018). Our data demonstrated how listening clinics and community events helped facilitate open and transparent dialogue and feedback (Cribb et al., 2021).

Walk-arounds facilitated ongoing sense making around safety-in-action as service and unit/safety leads actively sought service users' experiences and to hear concerns as events unfolded (O'Hara et al., 2018). Building user feedback in to enable service improvement, and to shape learning from poor experiences also contributed to the co-production of safety (Mackintosh et al, 2016). Structural and systemic inclusion of service user perspectives protects against 'epistemic injustice' which occurs when a person is unfairly harmed in her/his capacity as a knower, either through having the credibility of their testimonial discounted or by restricting their ability to give meaning to their experiences (Fricker, 2007). Our data highlights how the routinisation of soft intelligence, specifically anchored around service user perspectives, into leaders' daily activities facilitates epistemic justice and access to different ways of 'knowing' (Lyndon et al., 2023; VanGompel et al., 2021). This stands in sharp contrast to safety culture surveys which tend to still only include staff assessments, rather than building in opportunities to incorporate the views of service users and family members (Al Nadabi et al., 2019).

Service and unit/safety leads' political connections and specific knowledge were vital in managing the interface between safety policy and local operations. Being attentive to policy shifts, working to tailor national imperatives to the needs of service users (including improvising in their approaches to implementing change), and exercising their voice and political influence were important aspects that shaped positive local safety cultures. Informal connections, work practices and social networks supported the formal organisational and group structures and processes at various levels within the organisation, including work to align local empowerment and bottom-up customization, with top-down and centralized national safety structures and processes (Currie & Suhomlinova 2006; Gutberg & Berta, 2017). Davies and Mannion (2013) have questioned the assumption that culture is somehow limited to a workplace setting and call for more sophisticated understandings of how cultures are shaped by healthcare policy. Our research adds to a recent report published on difficulties associated with implementation of continuity of carer, and the importance of senior management and MNVPs for supporting sustainability (McCourt et al., 2023).

Lastly, cultural understandings about safety are likely to vary amongst different groups and at different levels of an organization (Davies & Mannion, 2013, Mannion, 2022). Cultures of safety are relational and evolving, and (re)produced locally through social interaction (Meyerson, 1991). A culture which influences safety positively is more likely to have the headroom to encourage the expression and management of heterogenous and potentially conflicting views in a constructive manner. This requires a more democratic approach to safety development (Antonsen et al., 2017). Our research highlights the boundary work that service and unit/safety leads undertook (both vertically and laterally), providing tools and resources, and packaging and synthesizing information

to involve and influence others, and sustain and develop their local cultures of safety (Birkin et al., 2016). Our findings support those from other studies on the significance of 'in-betweenness' and the fluidity role of middle-managers roles and practices, as they skilfully protect and bridge boundaries' to achieve specific purposes (Azambujaa et al, 2023; Chreim et al., 2013; Oldenhof et al., 2016). Service and unit/safety leads' exerted information power (know-how enabling them to influence control over resources), alliances and networks (exerting influence via coalitions); agenda setting (ensuring voice at board and leadership meetings); and symbolic power (reaching in to hear from user groups and communities) (Lukes,1974).

Strengths and limitations

This was an exploratory qualitative study focusing on nurturing conditions for local safety cultures rather than a complete description of all aspects of the phenomenon under study (Malterud et al., 2016). A strength was that the research was anchored in and built on safety culture scores, enabling recruitment of sites that were assessed as scoring highly for their safety culture. Our use of interviews and focus groups allowed us to gain an in-depth understanding of the work undertaken by middle managers and how this contributed to cultures of safety. Our recruitment of unit/safety leads as well as service leads across multiple organisations allowed for inclusion of multiple perspectives across hierarchies and professional boundaries. Generally, we found synergy with staff reporting similar interpretations of supportive contexts for local safety cultures both hierarchically and across services.

We relied on staff within the organisations to help with recruitment and acknowledge the limitations of this approach including selection bias. Our research was conducted during the second wave of COVID; an important consideration is whether these findings hold relevance for current practice. Our approach to cultures of safety as *dynamic* and *emergent* highlights the value of understanding safety-in-action practices at particular timepoints and allows for ongoing reflections how these change (or not) in line with local and wider socio-political contexts. We only managed to recruit staff for two focus groups and were unable to hear from staff from six of the eight units. Our data are based on interviews representing views, we did not conduct observations of actions, behaviors and consequences in practice. We are also mindful that our understandings of enabling contexts were limited to staff accounts. Further research could usefully explore service users' experiences of supportive contexts at both micro and meso level, and executive and non-executive directors experiences of working with middle-managers. Ethnographic work could also explicate how work situations and practices could provide nuanced insights into relationships between contextual enabling factors and local cultures for safety.

Conclusions

Our research revealed the ways in which service and unit/safety leads actively worked across hierarchies and boundaries (within and outside the organisation) to influence their local cultures of safety. This involved managing power relations, consensus and disagreement around safety, with hospital boards, service users and policy makers. This has implications for policy makers and senior managers supporting staff in such roles, in efforts to develop local safety cultures. The preparation and training provided for staff in these middle-management positions should include learning about boundary management i.e., sensitizing service and unit/safety leads to the multiplicity of boundaries in healthcare and how best to manage them (Chreim et al, 2013) as well as political skills development (Mannion, 2024). Revising middle-management job descriptions to recognise knowledge brokering activities as a core function rather than just focusing on operational responsibilities (Boutcher et al, 2022) would also formalise the importance of their influencer roles, for enabling cultures of safety.

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